

CSA0976 Programming in Java

Name: V.Babu Nagarajan

Reg no: 192110084

Assignment 5

1.Code:

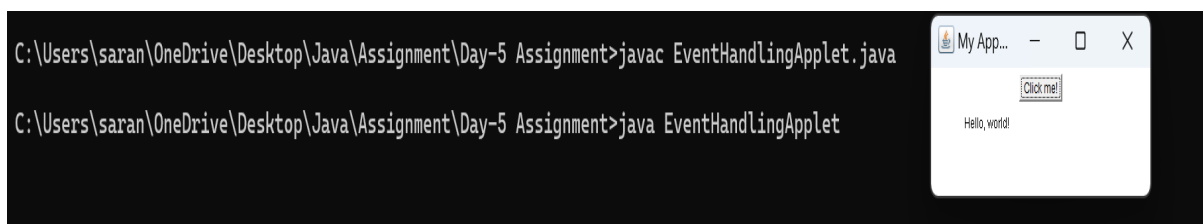
```
import java.applet.Applet;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.WindowAdapter;
import java.awt.event.WindowEvent;
public class EventHandlingApplet extends Applet implements
ActionListener
{
    Button button;
    String message;
    public void init()
    {
        button = new Button("Click me!");
        add(button);
        button.addActionListener(this);
        message = "";
    }
    public void actionPerformed(ActionEvent event)
    {
        if (event.getSource() == button)
        {
            message = "Hello, world!";
```

```

    }
    repaint();
}
public void paint(Graphics g)
{
    g.drawString(message, 50, 50);
}
public static void main(String[] args)
{
    EventHandlingApplet applet = new EventHandlingApplet();
    applet.init();
    Frame frame = new Frame("My Applet");
    frame.add(applet);
    frame.pack();
    frame.addWindowListener(new WindowAdapter()
    {
        public void windowClosing(WindowEvent event)
        {
            System.exit(0);
        }
    });
    frame.setVisible(true);
}
}

```

Output:



```

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>javac EventHandlingApplet.java
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>java EventHandlingApplet

```

2.Code:

```
import java.io.*;
class FileIOExample
{
    public static void main(String args[])
    {
        try
        {
            FileOutputStream fos = new FileOutputStream("output.txt");
            String message = "WELCOME TO SSE";
            fos.write(message.getBytes());
            fos.close();
            FileInputStream fis = new FileInputStream("output.txt");
            byte[] bytes = new byte[fis.available()];
            fis.read(bytes);
            fis.close();
            String readMessage = new String(bytes);
            System.out.println(readMessage);
        }
        catch (IOException e)
        {
            System.out.println("Error: " + e.getMessage());
        }
    }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>javac fileop.java
```

```
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>java FileIOExample  
WELCOME TO SSE
```

3.Code:

```
import java.util.Scanner;  
class captialuse  
{  
    public static void main(String[] args)  
    {  
        Scanner scan = new Scanner(System.in);  
        System.out.print("Enter a word: ");  
        String word = scan.nextLine();  
        booleanisRightUsage = true;  
        booleanallCaps = true;  
        booleannoCaps = true;  
        for (int i = 0; i<word.length(); i++)  
        {  
            char c = word.charAt(i);  
            if (Character.isLowerCase(c))  
            {  
                allCaps = false;  
            }  
            else  
            {  
                noCaps = false;  
            }  
            if (!allCaps&& !noCaps)  
            {
```

```

        isRightUsage = false;
        break;
    }
}
if (isRightUsage || allCaps || noCaps)
{
    System.out.println("The usage of capitals in \"" + word + "\" is
correct.");
}
else
{
    System.out.println("The usage of capitals in \"" + word + "\" is
incorrect.");
}
}
}
}

```

Output:

```

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>javac captialuse.java
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>java captialuse
Enter a word: USA
The usage of capitals in "USA" is correct.
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>java captialuse
Enter a word: Good
The usage of capitals in "Good" is incorrect.

```

4.Code:

```

import java.util.Arrays;
class upperch
{
    public static char nextGreatestLetter(char[] letters, char target)
    {
        int n = letters.length;
    }
}

```

```

int left = 0, right = n - 1;
while (left <= right)
    {
int mid = left + (right - left) / 2;
if (letters[mid] <= target)
    {
        left = mid + 1;
    }
    else
    {
        right = mid - 1;
    }
    }
return left >= n ? letters[0] : letters[left];
}

public static void main(String[] args)
{
char[] letters = {'c', 'f', 'j'};
char target = 'a';
char result = nextGreatestLetter(letters, target);

System.out.println("Input: letters = " + Arrays.toString(letters) + ",
target = " + target);

System.out.println("Output: " + result);
}
}

```

Output:

```

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>javac upperch.java
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>java upperch
Input: letters = [c, f, j], target = a
Output: c

```

5.Code:

```
import java.util.Scanner;

public class Menusel
{
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in);
        char choice;
        do
        {
            System.out.println("Help on : ");
            System.out.println("1. if");
            System.out.println("2. switch");
            System.out.println("3. while");
            System.out.println("4. do-while");
            System.out.println("5. for\n");
            System.out.print("Choose any one : ");
            choice = scan.next().charAt(0);
        } while(choice < '1' || choice > '5');
        System.out.println("\n");
        switch (choice)
        {
            case '1':
                System.out.println("The if :\n");
                System.out.println("if(condition)\n{\n\tstatement\n}");
                System.out.println("else\n{\n\tstatement\n}");
                break;
            case '2':
```

```

        System.out.println("The switch :\n");
        System.out.println("switch(expression)\n{");
        System.out.println("\tcase constant: statement
sequence\n\tbreak;");
        System.out.println("\t//...\n}");
        break;
case '3':
        System.out.println("The while :\n");
        System.out.println("while(condition)\n{");
        System.out.println("\t// body of loop\n}");
        break;
case '4':
        System.out.println("The do-while :\n");
        System.out.println("do\n{");
        System.out.println("\t// body of loop\n\n}while(condition);");
        break;
case '5':
        System.out.println("The for :\n");
        System.out.println("for(initialization; condition; iteration)\n{");
        System.out.println("\t// body of loop\n}");
        break;
default:
        System.out.println("Invalid choice!");
    }
}
}

```


Output:

```
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>javac Menusel.java

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-5 Assignment>java Menusel
Help on :
1. if
2. switch
3. while
4. do-while
5. for

Choose any one : 1

The if :

if(condition)
{
    statement
}
else
{
    statement
}
```